

SUBSTITUTE ABSTRACT OF THE DISCLOSURE



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A device for receiving optical signals includes a light-guiding object into which optical signals received may be coupled and which contains material having an electron configuration in which the population density of two electronic states may be inverted by energetic excitation. In response to stimulation from received optical signals at an irradiation surface, the light-guiding object emits light within the material by elastic dispersion. The emitted light has a wavelength that corresponds to the wavelength of the optical signals received. An excitation unit induces the inversion. Moreover, a detector optically coupled to the light-guiding object, detects the emitted light. The material of the light-guiding object, in response to stimulation from received optical signals at an angle of  $0^\circ < \alpha \leq 90^\circ$  relative to the irradiation surface, produces light having a radiation component in the direction of a main propagation direction of the light-guiding object.

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OCT 20 2000  
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